## **CLAIMS**

1. Interpretation system (IS) for interpreting reflectometry information, characterised in that said interpretation system (IS) comprises at least a first module (M1) for making a first interpretation and a second module (M2) for making a second interpretation, with each module (M1,M2) comprising a generating module-part (G1,G2), a testing module-part (T1,T2) and a debugging module-part (D1,D2), and with said first module (M1) being a generating system-part for said second module (M2) and with said second module (M2) being a testing system-part and a debugging system-part for said first module (M1).

5

10

15

- 2. Interpretation system (IS) according to claim 1, characterised in that said interpretation system (IS) comprises at least a third module (M3) for making a third interpretation, with said third module (M3) comprising a generating module-part (G3), a testing module-part (T3) and a debugging module-part (D3), and with said second module (M2) being a generating system-part for said third module (M3) and with said third module (M3) being a testing system-part and a debugging system-part for said second module (M2).
- 3. Interpretation system (IS) according to claim 2, characterised in that said first interpretation is a pulse-based interpretation, with said second interpretation being an energy-based interpretation, and with said third interpretation being a simulation-based interpretation.
- 4. Interpretation system (IS) according to claim 3, characterised in that said interpretation system (IS) comprises at least one processor, with said modules (M1-3), module-parts (G1-3,T1-3,D1-3) and system-parts being software to be run via said at least one processor.
- 5. Interpretation system (IS) according to claim 3 or 4, characterised in that said generating module-part (G1) of said first module (M1) receives measurement-feature

information and/or topology information from a feature extraction and belief network module (M4), with said testing module-part (T1) of said first module (M1) sending peak-explanation information and line-delay information to said generating module-part (G2) of said second module (M2), and with said debugging module-part (D1) of said first module (M1) sending wrong-topology information and/or noise information to said feature extraction and belief network module (M4).

- 6. Interpretation system (IS) according to claim 5, characterised in that said testing module-part (T2) of said second module (M2) sends line-parameter information to said generating module-part (G3) of said third module (M3), with said debugging module-part (D2) of said second module (M2) sending impossible-peak-explanation information to said generating module-part (G1) of said first module (M1).
- 7. Interpretation system (IS) according to claim 6, characterised in that said testing module-part (T3) of said third module (M3) sends line-delay information and/or line-definition information to a signal identification module (M5), with said generating module-part (G3) of said third module (M3) receiving wrong-solution information from said signal identification module (M5), and with said debugging module-part (D3) of said third module (M3) sending wrong-parameter-range information to said generating module-part (G2) of said second module (M2).
  - 8. Telecommunication system comprising an interpretation system (IS) for interpreting reflectometry information, characterised in that said interpretation system (IS) comprises at least a first module (M1) for making a first interpretation and a second module (M2) for making a second interpretation, with each module (M1,M2) comprising a generating module-part (G1,G2), a testing module-part (T1,T2) and a debugging module-part (D1,D2), and with said first module (M1) being a generating system-part for said second module (M2) and with said second module (M2) being a testing system-part and a debugging system-part for said first module (M1).

9. Method for interpreting reflectometry information, characterised in that said method comprises at least a first step of making a first interpretation and a second step of making a second interpretation, with each step comprising a generating substep, a testing substep and a debugging substep, and with said first step being a generating step for said second step and with said second step being a testing step and a debugging step for said first step.

10. Processor program product for interpreting reflectometry information, characterised in that said processor program product comprises at least a first function of making a first interpretation and a second function of making a second interpretation, with each function comprising a generating subfunction, a testing subfunction and a debugging subfunction, and with said first function being a generating function for said second function and with said second function being a testing function and a debugging function for said first function.